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MARKET CLASSIFICATION AND GRADING OF MUSKRAT PELTS TAKEN FROM BLACKWATER REFUGE IN 1941

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The Blackwater National Wildlife Refuge, situated about 10 miles southwest of Cambridge on the Eastern Shore of Maryland, comprises 8,241 acres, of which some 5,230 are muskrat marsh. The Federal Government acquired trapping privileges at the close of the 1940 season and during the next season, January 1 to March 15, muskrats were trapped under the direction of the refuge manager. The director of the Fur Animal Field Station on the refuge obtained much detailed information on the entire catch.

At the time of skinning, the muskrats were divided according to color (black or brown), sex, and maturity (adults or kits). After the pelts had been dried on stretchers, they were shipped at quarter-monthly periods to an auction company for grading and sale. More than 9,000 skins were taken, which was 40 percent of normal, but because of weather conditions the number by periods varied considerably. Grading was based on size of skin, seasonal appearance, and density of fur. The nature and degree of any damage were also considered. Data pertinent to the classification of these pelts will be found in the accompanying tables and charts.

There was little difference in percentage distribution according to size between pelts from males and from females, and between blacks and browns, but there was some variation in the percentage of pelts within each size group throughout the season. The percentage of mediums increased from about 4 at the beginning of the season to 21 at the end, and the highest percentage of the XXX large pelts was during the middle and early part of the season. Of all skins taken, 75 to 90 percent were graded as large and X, XX, and XXX large (table 1 and fig. 1).

The kits and mice (as well as the low grades and culls) were not included in the size groups. The kits and mice varied from less than 0.5 percent of all skins taken the last week in February to 4.2 during

the first week in March. There were three peaks: the first week each of January, February, and March. The low grades and culls, including kits and mice, varied from 4 to 9 percent throughout the season.

The distribution under the market classifications "fall," "winter," and "spring" (table 2 and fig. 2) roughly group the skins according to the season when taken, though most of the fall skins listed were taken in midwinter, with a few in March.

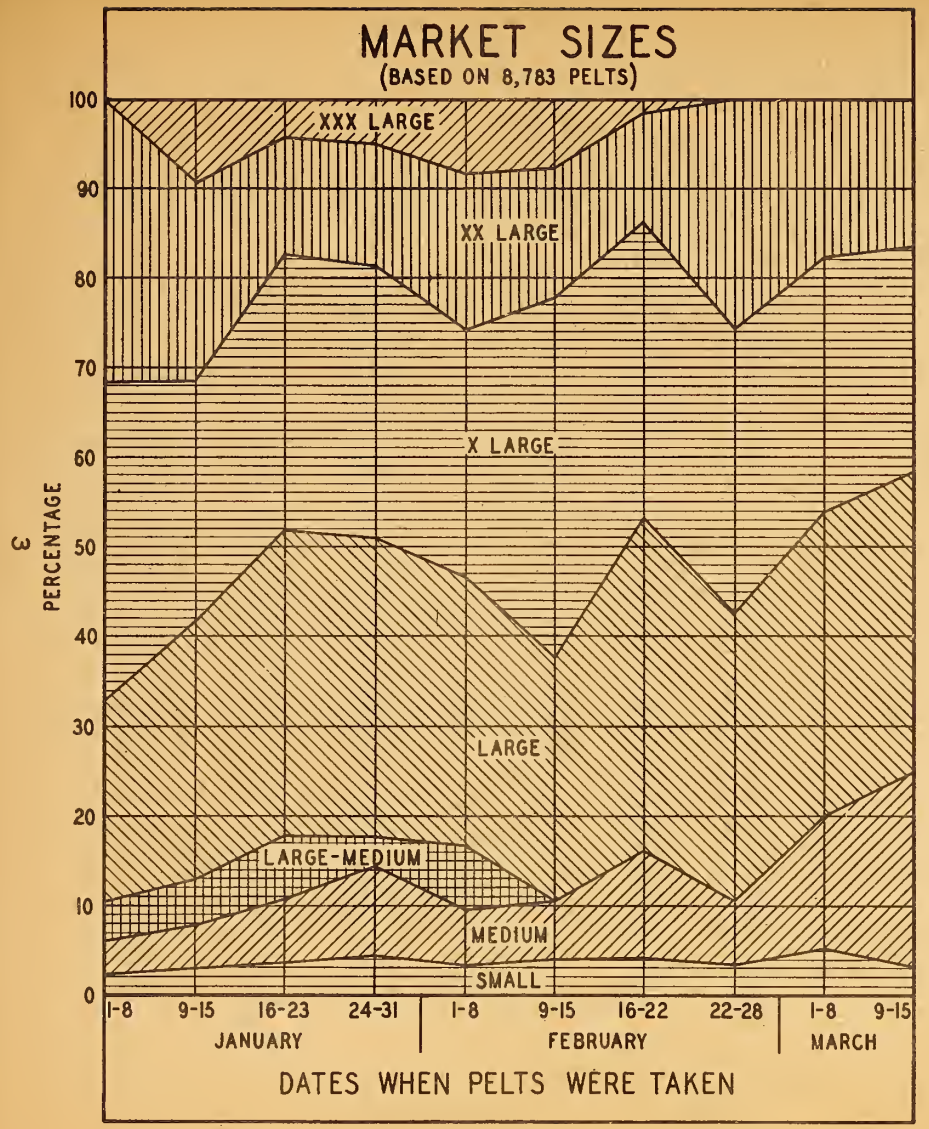
At the beginning of the trapping season, 88 percent of the pelts were appraised as "full winter," and this percentage gradually increased as the season progressed. The spring skins did not appear until the second week in February, when nearly half the males and only a fifth of the females were so graded. More than 82 percent of the male skins and never more than 65 percent of the females of any one week were put in the spring group.

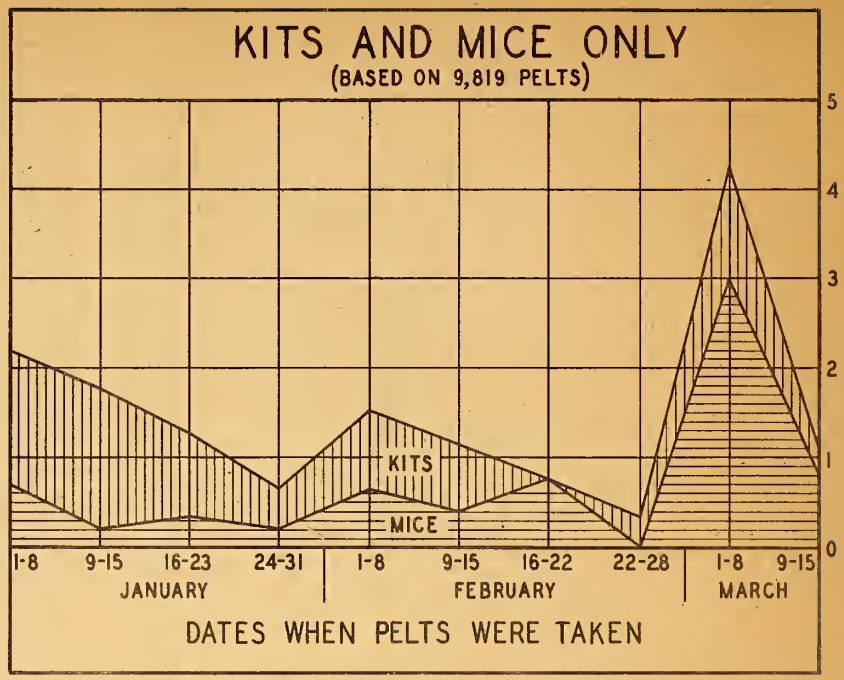
It would appear that female muskrats are later in priming than are males. The auction company stated that it appraised spring muskrat pelts about 21 percent higher than fall and 5 percent higher than winter pelts.

The slightly damaged skins varied from 3 percent during the second week of trapping to 12 percent during the last week, with an average for the season of 7 percent. After excluding these and the low-grade pelts, all others taken after the first week in February were graded as heavy-furred, and even during the early half of the season more than 60 percent were so graded.

From January 9 to February 8, pelts with light fur amounted to about 30 percent. These were appraised about 12 percent lower than the heavy-furred pelts. Skins that were heavy-furred but light in "leather" were equal in value to the heavy-furred pelts with normal leather and averaged about 10 percent of the skins taken during the first 2 weeks of trapping. Only about 2 percent of the first week's catch were classed as flat-furred and none after that.

The information contained in this leaflet covers only 1 year, but the investigations are to be continued over a period of several years, and similar investigations may be extended to refuges in other parts of the United States.





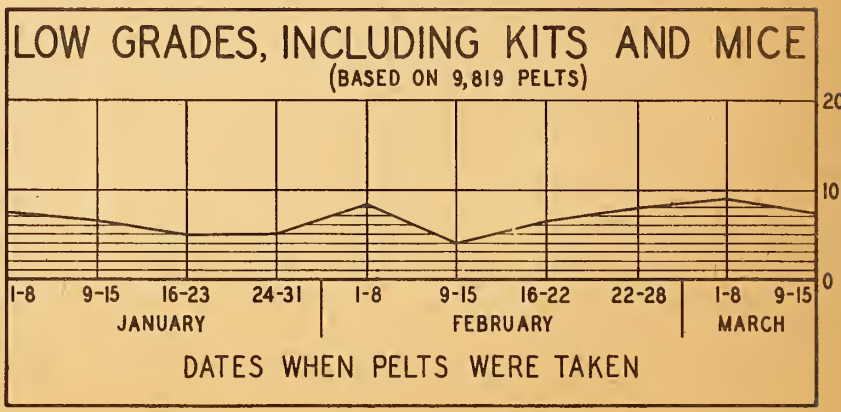
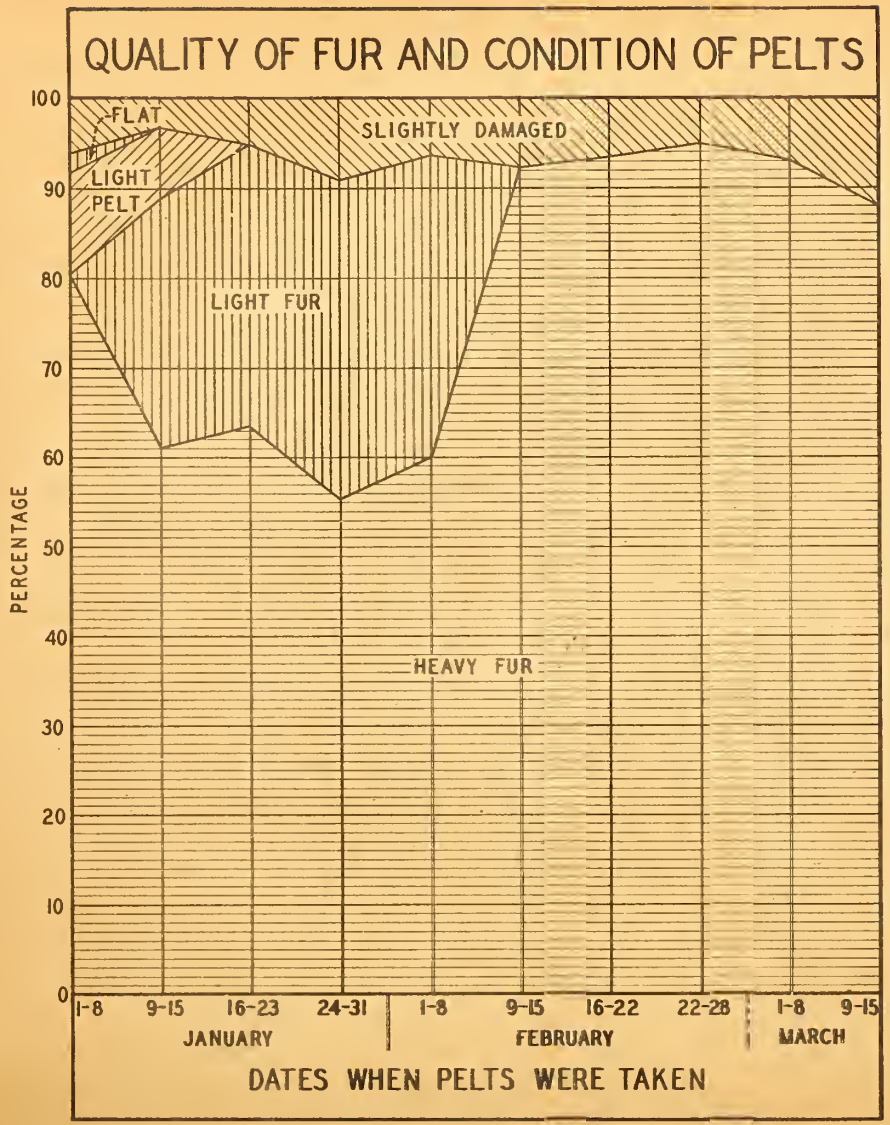


FIGURE 1.—Percentage distribution of muskrat pelts, of both sexes, taken on the Blackwater Refuge, Md., January 1 to March 15, 1941, grouped according to size and condition.



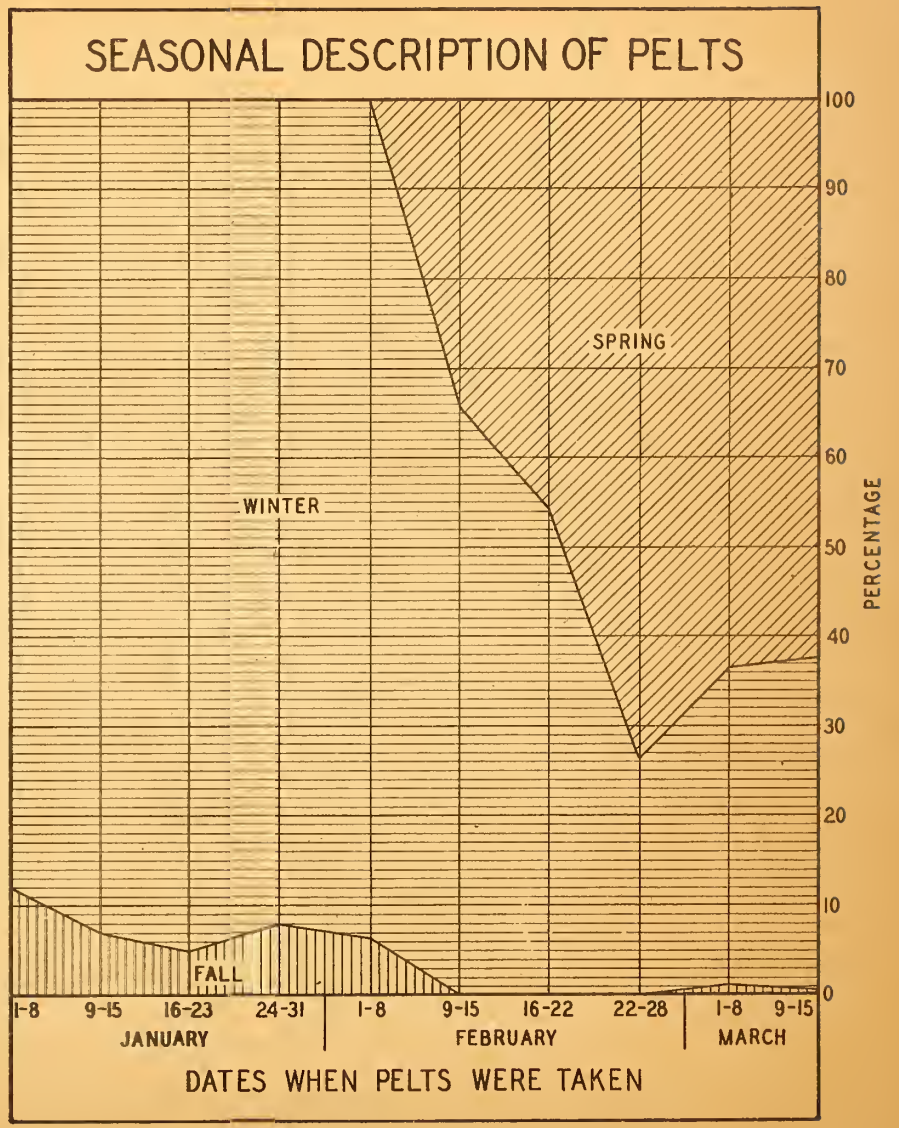


FIGURE 2.—Percentage distribution of 8,543 muskrat pelts, of both sexes, taken on the Blackwater Refuge, Md., January 1 to March 15, 1941, based on auction company's classification as to quality, condition, and seasonal description.

TABLE 1.--Percentage distribution according to market size of 8,783 muskrat pelts taken on the Blackwater Refuge, Md., January 1 to March 15, 1941

Market size	Male (4,926)	Female (3,857)	Both sexes (8,783)
XXX large	3.3	3.2	3.3
XX large	19.2	19.5	19.3
X large	32.6	29.7	31.3
Large	29.4	31.1	30.1
Large to medium	3.9	3.3	3.6
Medium	8.2	9.5	8.8
Small	3.2	3.6	3.4
X small	.2	.1	.2
Total	100.0	100.0	100.0

TABLE 2.--Percentage distribution according to market classification on seasonal appearance of 8,543 muskrat pelts by trapping periods from January 1 to March 15, 1941

Period taken	Seasonal appearance								
	Fall			Winter			Spring		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
January:									
1-8	11.5	12.6	12.0	88.5	87.3	88.0	....	....	....
9-15	4.8	9.4	7.1	95.2	90.6	92.6	....	....	....
16-23	5.4	4.5	5.0	94.6	95.5	95.0	....	....	....
24-31	6.4	10.0	7.9	93.6	90.0	92.1	....	....	....
February:									
1-8	5.4	7.5	6.4	94.6	92.5	93.6	....	....	....
9-15	....	....	....	54.8	81.0	65.8	45.2	19.0	34.2
16-22	....	....	....	48.1	61.5	54.3	51.9	38.5	45.7
23-28	....	....	....	17.6	34.2	26.3	82.4	65.8	73.7
March:									
1-8	....	2.1	1.0	34.1	37.3	35.6	65.9	60.6	63.4
9-15	....	.9	.4	36.4	38.4	37.2	63.6	60.7	62.4